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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,682	09/15/2003	Michael Scott Burnett	C03-05	9785

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EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,682

Applicant(s)

BURNETT ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 57-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The drawings are objected to because Page 9, lines 4, makes reference to Figure 7b, however there is no Figure 7b. Does applicant intend for the it to read Figure 13b? Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 57, 58, 63-67, and 69-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galloway et al. (USPN 6575845) in view of Molitor et al. (USPN 4762322).

Regarding claim 57, Galloway et al. discloses a golf club head comprising a first body portion composed of a first material having a density and forming at least a front face portion having a geometric face center and a sole section, a second body portion composed of a second material having a density that is less than the density of the first material and forming a crown section and a substantial portion of a skirt attached to the first body portion, and a hosel member composed of a third material having a density less than the first density and attached to the first body, wherein the club head has a center of gravity and notes that weight member may be placed within the club head to obtain the center of gravity desired. Molitor et al. discloses a club head having a center of gravity lower than at least 5mm of the face center (See Summary of the Invention). One having ordinary skill in the art would have found it obvious to have the center of gravity 5mm lower than the face center, as taught by Molitor et al., in order to improve the travel of the golf club.

Regarding claim 58, one having ordinary skill in the art would ideally locate the maximum COR at the geometric face center. Galloway et al. discloses the striking face having the thickness of the face vary wherein the center of the face is most thickness.

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One having ordinary skill in the art would have found the maximum COR to occur in the center because of the above arrangement of the face.

Regarding claim 63, Galloway et al. discloses the first material being a stainless steel alloy and the second material being a composite or a thermoplastic.

Regarding claims 64, Galloway et al. discloses the second body being injection molded (See Column 7, lines 11 through 29).

Regarding claims 65 and 66, Galloway et al. discloses the first body being forged or casted (See Column 6, lines 17 through 30).

Regarding claim 67, Galloway et al. discloses the club head having a maximum coefficient of restitution greater than 0.80 (See Column 9, lines 57 through 64).

Regarding claim 69, Galloway discloses a rear weighting member and heel and toe weighting members attached to the first body. Applicant does not disclose why the shape of the weight member is critical in attaining the invention. Galloway et al. also notes that the weight members may also be attached anywhere within the interior to influence the center of gravity. Also applicant does not disclose why the weight member has to be integrally made with the sole. One having ordinary skill in the art would have found the shape of the weight member and the location to be a matter of routine optimization. There is no disclosed reason by the applicant why the weight member has to be one piece. One having ordinary skill in the art would have found it obvious to have the weight portion in any number of pieces and any shape formed integral or separately so long as the center of gravity set forth by the combination is attained.

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Regarding claims 70 and 71, method of forming the weight member is a product by process; therefore, the process will not be given weight being that Galloway et al. discloses a weight member.

Regarding claim 72. Galloway et al. discloses the weight portion being at most about 25% of the total head weight (See Columns 9 and 10).

Claims 73 and 79-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galloway et al. (USPN 6575845).

Regarding claim 73, Galloway et al. discloses a golf club head comprising a first body portion composed of a first material having a density and forming at least a front face portion having a geometric face center and a sole section, a second body portion composed of a second material having a density that is less than the density of the first material and forming a crown section and a substantial portion of a skirt attached to the first body portion, and a hosel member composed of a third material having a density less than the first density and attached to the first body, wherein the club head has a center of gravity and notes that weight member may be placed within the club head to obtain the center of gravity desired. The Office does not have the ability to test the prior art club head, therefore, it is submitted that the spin rate to launch ration is met by Galloway et al. because it meets the structure of the claimed invention.

Regarding claim 79, see the above regarding claim 63.

Regarding claim 80, see the above regarding claim 64.

Regarding claim 81 and 82, see the above regarding claim 65 and 66.

Regarding claim 83, see the above regarding claim 67.

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Claims 59-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galloway et al. (USPN 6575845) in view of Molitor et al. (USPN 4762322) further in view of Kosmatka (USPN 6478692).

Regarding claim 59, Galloway et al. in view of Molitor et al. discloses the club head having a first material being titanium alloy, the second material being a ~~pre~~-pre-material (composite), and the third material being thermoplastic, but does not disclose the second material being a graphite composite. Kosmatka discloses a club head wherein the club head has a body made of either graphite composite or carbon composite. When using the two fibers the club head tends to have a larger volume, in particular, the two fibers are used to attain volume of the same range (See Column 12, lines 34 through 54). One having ordinary skill in the art would have found it obvious to use either type of fiber as taught by Kosmatka being that the materials appear to be substitutable equivalents.

Regarding claim 60, Applicant does not disclose why the hosel has to be made of nylon; only that the hosel can be made of a lightweight metal or a thermoplastic wherein nylon may be one of the thermoplastics. Galloway et al. discloses a hosel made of a polycarbonate material which is a thermoplastic. Galloway et al. also notes that the material is lightweight (See Column 8, lines 16 through 29). One having ordinary skill in the art would have found the selection of the material to be an obvious matter of design choice.

Regarding claim 61, Applicant does not note the different characteristics that arise from having a magnesium second body vs. a composite second body. The

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applicant also notes that composites may substituted for magnesium. Being that the different in characteristics are not shown by the applicant, one having ordinary skill in the art would have found it obvious to use any type of material for the second body so long as it is lightweight and it contributes to lowering the center of gravity of the club head. In regards to the third material, see the above regarding claims 59 and 60.

Regarding claim 62, applicant does not disclose why the the hosel has to be made of aluminum, only that the hosel can be made of a lightweight metal or a thermoplastic wherein nylon may be one of the thermoplastics. Galloway et al. discloses a hosel made of a polycarbonate material which is a thermoplastic. Galloway et al. also notes that the material is lightweight (See Column 8, lines 16 through 29). One having ordinary skill in the art would have found the selection of the material to be an obvious matter of design choice.

Claims 74-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galloway et al. (USPN 6575845) in view of Kosmatka (USPN 6478692).

Regarding claim 74, Galloway et al. ^{in view of} ~~in view of Molitor et al.~~ discloses the club head having a first material being titanium alloy, the second material being a pre-pre material (composite), and the third material being thermoplastic, but does not disclose the second material being a graphite composite. Kosmatka discloses a club head wherein the club head has a body made of either graphite composite or carbon composite. When using the two fibers the club head tends to have a larger volume, in particular, the two fibers are used to attain volume of the same range (See Column 12, lines 34 through 54). One having ordinary skill in the art would have found it obvious to

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use either type of fiber as taught by Kosmatka being that the materials appear to be substitutable equivalents.

Regarding claim 75, Applicant does not disclose why the hosel has to be made of nylon; only that the hosel can be made of a lightweight metal or a thermoplastic wherein nylon may be one of the thermoplastics. Galloway et al. discloses a hosel made of a polycarbonate material which is a thermoplastic. Galloway et al. also notes that the material is lightweight (See Column 8, lines 16 through 29). One having ordinary skill in the art would have found the selection of the material to be an obvious matter of design choice.

Regarding claims 76 and 77, Applicant does not note the different characteristics that arise from having a magnesium second body vs. and composite second body. The applicant also notes that composites may be substituted for magnesium. Being that the differences in characteristics are not shown by the applicant, one having ordinary skill in the art would have found it obvious to use any type of material for the second body so long as it is lightweight and it contributes to lowering the center of gravity of the club head. In regards to the third material, see the above regarding claims 74 and 75.

Regarding claim 78, applicant does not disclose why the hosel has to be made of aluminum, only that the hosel can be made of a lightweight metal or a thermoplastic wherein nylon may be one of the thermoplastics. Galloway et al. discloses a hosel made of a polycarbonate material which is a thermoplastic. Galloway et al. also notes that the material is lightweight (See Column 8, lines 16 through 29). One having ordinary skill in

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the art would have found the selection of the material to be an obvious matter of design choice.

Regarding claim 79, Galloway discloses the first material being stainless steel. See the above regarding claim 74, regarding the graphite composite.

Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Galloway et al. (USPN 6575845) in view of Molitor (USPN 4762322) further in view of Werner et al. (USPN 6319150).

Regarding claim 68, Galloway et al. does not disclose the gradient thickness of the front face reducing from lower area to upper area. Werner et al. discloses a face structure wherein the face structure is thickness at the center and thinner at the periphery as set forth by Galloway et al. Werner et al. Also notes that the face structure may also have a varying thickness so long as the face is thickest at the center and the periphery is thinner than the center (See Entire Document). One having ordinary skill in the art would have found it obvious to have the gradient thickness of any value so long as it attains the goals of Werner et al. and the club head maintain high moments of inertia.

Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Galloway et al. (USPN 6575845) in view of Werner et al. (USPN 6319150).

Regarding claim 84, Galloway et al. does not disclose the gradient thickness of the front face reducing from lower area to upper area. Werner et al. discloses a face structure wherein the face structure is thickness at the center and thinner at the periphery as set forth by Galloway et al. Werner et al. Also notes that the face structure

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may also have a varying thickness so long as the face is thickest at the center and the periphery is thinner than the center (See Entire Document). One having ordinary skill in the art would have found it obvious to have the gradient thickness of any value so long as it attains the goals of Werner et al. and the club head maintain high moments of inertia.

Response to Arguments

Applicant's arguments with respect to claims 59-84 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Kim, can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAH

Alvin A. Hunter, Jr.



**EUGENE KIM
PRIMARY EXAMINER**